MULTIMEDIA UNIVERSITY

STUDENT IDENTIFICATION NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2018/2019

BAC2644 – CORPORATE FINANCE

(All sections / Groups)

6 MARCH 2019
2.30 p.m. – 5.30 p.m.
(3 Hours)

INSTRUCTIONS TO STUDENT

1. This Question paper consists of **4** pages with 4 Questions only.

2. Answer **ALL** questions (**COMPULSORY**). The distribution of the marks for each question is given.

3. Please write all your answers in the Answer Booklet provided.

QUESTION 1

Cemerlang Sdn. Bhd. is a Malaysian manufacturer with its factory located in Shah Alam. Cemerlang's products obtained ISO-9001 certification. Assume that Cemerlang has recently developed a new product after extensive research and development and that the research and development costs have totaled about RM500,000. A RM110,000 market testing expenses has also spent and proved that there is a significant market for the new model. The new model will be put into the market this year and is expected to stay in the market for eight years. The company is now considering the new product launch.

The project will cost RM750,000, have a eight-year life, and have no salvage value; depreciation is straight-line to zero. Sales are projected at 90,000 units per year; price per unit will be RM50, variable cost per unit will be RM30, and fixed costs will be RM650,000 per year. The required return on the project is 13 percent, and the relevant tax rate is 35 percent. As a financial analyst of Cemerlang, you have to evaluate and provide recommendation on whether to go ahead with the product launch.

a. Calculate the accounting break-even point. What is the degree of operating leverage at the accounting break-even point?

(5 marks)

b. Calculate the base-case cash flow and NPV. What is the sensitivity of NPV to changes in the sales figure? Explain what your answer tells you about a 500-unit decrease in projected sales.

(12 marks)

c. Based on your experience, you think the price, quantity, variable cost, and fixed cost projections given here are probably accurate to within ±10 percent. Calculate the best-case and worst-case NPV figures.

(8 marks)
(Total: 25 marks)

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QUESTION 2

a. Consider the following information about three stocks:

State of Economy	Probability of state of economy	Rate of Return if State Occurs		
		Stock A	Stock B	Stock C
Boom	0.30	20%	25%	60%
Normal	0.45	15%	11%	5%
Bust	0.25	1%	-15%	-50%

If your portfolio is invested 40 percent each in A and B and 20 percent in C, compute the following.

i. What is the portfolio expected return? (8 marks)

ii. What is the standard deviation of the constructed portfolio? (6 marks)

iii. If the expected T-bill rate is 3.80 percent, what is the expected risk premium on the portfolio? (3 marks)

b. Suppose you observe the following situation:

Security	Beta	Expected Return
Bagus Bhd.	1.8	22%
Unggul Bhd.	1.6	20.44%

i. If the risk-free rate is 7 percent, are these securities correctly priced? (5 marks)

ii. What would the risk-free rate have to be if they are correctly priced? (3 marks)

(Total: 25 marks)

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QUESTION 3

a. Jahan Sdn. Bhd. is a communication service provider firm and was founded in 1998. Israt is working as a financial manager of this company for the last 10 years. She is always facing a dilemma of whether the firm should take debt or not because this decision affects firm's value. The information for two scenarios, i.e. levered and unlevered firm is given as below:

	Levered Firm	**Unlevered Firm**
EBIT	RM 10,000	RM 10,000
Debt @ 8% interest	RM 7,000	-
Corporate tax rate	25%	25%

The pure-equity capitalization rate applicable to the companies is 12% (after tax).

i. What is the value of the unlevered firm? (4 marks)

ii. What is the value of the levered firm? (4 marks)

iii. What will the value of unlevered firm if the firm converts to 25 percent debt? (4 marks)

iv. Although financial theory guides debt-equity ratio in capital structure, but there is no simple formula that will maximize the value of a firm. The financial manager has estimated that if the amount of debt increases the value of the firm increases too, but at the same time increases the probability of financial distress. Explain the identifiable debt-equity ratio that will maximize a firm's value if any and if not. (4 marks)

b. Jahan Sdn. Bhd. borrows RM2 million though a credit line which carries 7 percent interest rate. The firm had sales last year of RM5,000,000 based on cost of goods sold of RM3,000,000. This firm had an average accounts receivable of RM65,000. Credit sales were RM110,000. Accounts receivables are factored at discount rate of 11 percent and sell rest if the amount on the ringgit Malaysia. Jahan's financial manager is required to compute the following:

i. What is the average collection period? (3 marks)

ii. What is the effective annual rate? (3 marks)

iii. What would have happened to the firm's operating cycle if receivables turnover rate change to 35, a new inventory turnover rate of 17 and a payable turnover rate of 24. (3 marks)

(Total: 25 marks)

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QUESTION 4

a. Active Auto Inc. manufactures electronic components in the Vietnam.. Active Auto Inc. sells 300 of Z-model electronic devices to a company in Malaysia. The total price for these devices is RM80,000. The company will deliver the devices today and receive payment in six months from the Malaysian company. When payment is received Active Auto will convert the RM80,000 into U.S. dollars. The spot exchange rate and six-month forward rate in terms of ringgit per U.S. dollars are US$1 = RM4.178 and US$1 = RM4.142, respectively.

i. How much will Active Auto Inc. gain if it does not perform any hedges? (6 marks)

ii. Is the ringgit Malaysia selling at a discount or a premium compared to the U.S. dollars? (4 marks)

b. Active Auto Inc. currently has no debt. Its operating income is RM25 million and its tax rate is 30 percent. It pays out a part of its net income as dividend and has a sustainable growth. Its chief executive officer is considering to merge with another firm which has also no debt, known as Shiti Inc. CEO of Active Auto Inc. has estimated the value of the synergistic benefit from acquiring another firm is RM20,000. The following information is given for two all-equity firms:

	Active Auto Inc.	**Shiti Inc.**
Shares outstanding	3,100	7,500
Price per share	RM25	RM15

Shiti Inc. has given a condition that it would accept cash purchase offer at RM20 per share.

i. Given the above scenario, should Active Auto Inc. proceed with the merger? (5 marks)

c. In the coming top management committee meeting, Active Auto Inc.'s financial manager is asked to discuss the following:

i. Explain briefly 'hazard risks', 'financial risks', 'operational risks' and 'strategic risks'. (8 marks)

ii. What does beta indicate if its value less than 1 and greater than 1. (2 marks)

(Total: 25 marks)

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